



Recreation

This Fact Sheet provides a brief overview of a specific topic important to the Master Water Control Manual Review and Update Study process. Information contained in this Fact Sheet is summarized from technical reports and the preliminary Revised Draft Environmental Impact Statement.



Summary

Hunting, fishing, and boating are major recreation types in the region. Reservoir and river water levels affect recreation opportunities. For the 100-year study period, the average annual recreation benefits for the alternatives range between \$90.1 million (C44) and \$84.6 million (C18). Alternative C44 results in about a 6 percent positive impact compared to the CWCP and alternative C18 results in a positive impact of less than 1 percent. Drought has a significant impact on recreation opportunities under each alternative. Over 70 percent of the more than 10 million recreation days (1993) take place in the upper lakes and river reaches.



Existing Conditions

The six large lakes of the Mainstem Reservoir System and the reaches between and below these lakes provide recreation opportunities to residents of the states through which the river flows, as well as to those of neighboring states. Lakes are extremely important to the overall recreation benefits in the system; under the CWCP, \$60.4 million in recreation benefits are derived from the lakes each year. In comparison, \$24.2 million come from the remainder of the system. Recreational activity is a source of income for businesses catering to boating, hunting, fishing, camping, and other recreational pursuits as well as service establishments located near the river.

There are a variety of recreational opportunities on the Mainstem Reservoir System. Water-based recreation includes boating, boating-related activities, and swimming. Sport fishing is a primary component of recreation along the entire system. The wetlands along the river corridor provide waterfowl habitat, and waterfowl hunting is popular. Hunting for small and large

game such as squirrel, rabbit, and deer occurs on land along the lakes and river. The aesthetically pleasing character of the lakes and river reaches attract sightseers. Camping facilities vary from fully developed to primitive. More than two-thirds of these recreational activities are associated with the six Mainstem Reservoir System lakes. There are over 80,000 acres of recreational lands along nearly 6,000 miles of lake shoreline.

Water levels are a key factor in use of the lakes and river. At low lake levels, some boat ramps are unusable. For aesthetic reasons, some visitors are less likely to frequent lakes or streams that have noticeably low water levels. Furthermore, certain kinds of fishing and hunting depend on lake levels and stream flows. Since 1988, recreational use and the distribution of activity along the system have been affected by the drought. Only the upper three lakes, Fort Peck Lake, Lake Sakakawea, and Lake Oahe, were affected by the drought, leading to a reduction in access and a shift in recreational use to those areas with water access.

Boating is a major river recreation activity, with fishing activity high in tailwater reaches below the dams. River flow levels affect the ability of boats to maneuver. Boating, and to some extent fishing, are affected by river flows and releases from the dams. Low flows may limit river activity and access to the river from marinas and boat launches.



Comparison of the Alternatives

Impacts of the eight representative alternatives to recreation were measured by estimating the monetary benefits derived from various forms of recreation over the historical 100-year period of analysis, 1898 to 1997. The estimates were developed for

each lake and river reach on the Mainstem Reservoir System.

A comparison of the average annual recreation benefits is provided in the figure. Based on the 1897 to 1997 data, there is a range of more than \$5.5 million annually between the alternatives with the lowest value, the CWCP and alternative C18 (\$84.6 million), and alternative C44 (\$90.1 million).

On a more detailed level, the analysis indicates that there is a considerably greater variability in benefits under the eight alternatives within the lake portion of the system than within the river reaches of the system. Almost all of the difference in recreation benefits among alternatives occurs within the lakes,

where benefits range between \$66.5 million (C44) to \$60.4 million (CWCP and C18). The range in recreation benefits among alternatives among intrasystem river and lower river portions of the system was only \$830 thousand. Generally, higher storage levels in the lakes limit reductions in benefits during periods of drought.

In general, recreation benefits increase with increased conservation and a target flow at St. Louis, and diminish with fish and wildlife measures (FW10 and FW15). Adding intrasystem regulation modification (C18) has no impact on recreation benefits.

Total average annual recreation benefits

